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ABSTRACT

The described inservice teacher education course is designed for elementary and secondary school teachers who wish to develop skills in developing and implementing environmental education programs. The contents of the course are outlined, and the activities and resources involved are described. Ordering information for materials is included, and a critique of the course is provided. (JD)

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DESCRIPTION OF TEACHER INSERVICE EDUCATION MATERIALS

SUMMARY INFORMATION

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Title: ENVIRONMENTAL EDUCATION

Publication Date(s): March 1975

Intended Users: The program is intended for inservice use. The describer feels it is also applicable to preservice teachers and parents.

Grade Level(s): The outline content in the booklet is designed for teachers from K-8. The describer feels it is applicable to higher grades.

Number: Intended for group use. The developer does not specify the size--describer believes that 30 is optimal.

Primary Focus: The primary focus is on skill building, providing information, encouraging attitude change and increasing understanding on the subject of the environment and environmental education. The content includes a definition of environment, current problems and methods of integrating environmental studies with other subject matter.

School subject(s) and/or inservice topic(s) covered:

Inservice topics include use of outdoor education, media, an environmental interpretation center, and development of sensitivity. School subjects include ecology, forms of pollution, math, science, social studies, language and creative arts as conducted in the outdoor classroom and relating to the environment. Some subtopical selections include teaching behavior analysis; thermal, water, air and noise pollution; population education; insecticides; music, art and language; and junk ecology.

What participant does in using the materials:

The user attends a total of ten two-hour inservice sessions, takes three assessments (in the first session); views films and other audiovisual presentations; reads selected material; engages in various activities; participates in discussion with peers and an instructor; and implements the content of the sessions in classroom activities with students.

Resources:

The material consists of two softcover booklets and a small, glossy brochure. All of the suggested content material must be supplied by the user, e.g., audiovisual materials, activities sheets, reading material. Much of the material is available at the ESEA Title III office in Orange, Virginia, and the describer infers that suitable substitutions could be made. Three assessment instruments in the Teacher Inservice Workshops booklet can be reproduced; no answer keys are provided. The inservice program runs 16 hours.

Describer critique:

The product presents a persuasive rationale for environmental education, useful outlines for inservice training sessions, and good suggestions for student activities. It suffers, however, from a lack of organization--i.e., it is not clear if the two booklets are to be used together, or if each stands alone. Lack of actual content material makes it difficult to judge the booklet's efficacy, and the names of the distributors of the content material are not given.

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1.0 PURPOSES:

Rationale

In the Introduction the developer states: "There can be little argument contrary to the position that environmental education is of the highest priority. Environmental literacy is a must in today's society. In an effort to respond to this challenge, the ESEA Title II Project COMSEP was formulated and implemented within the Orange County Public Schools. Realizing that it is the classroom teacher who implements awareness and learning, the personnel of COMSEP feel that inservice training for teachers is invaluable."

Goals

On page five of the Introduction the developer states: "Hopefully this inservice guide shall provide a vehicle for those wishing to develop and implement environmental education programs within their school division. Obviously, this guide remains open-ended and should serve only as an impetus for the initiation of other programs of environmental inservice."

The describer infers from other statements made in the Introduction that a goal of the program is to encourage teachers to integrate environmental education with all aspects of the school program, and to instruct teachers to that end.

Objectives

The developer lists eight objectives of the course, four specific and four general. Among the general objectives, "The teacher will:

- Develop competence to educate their [sic] students about man's environment and his relationship to it; and
- See the potential of outdoor areas as a source for a variety of observations from which learning in many disciplines may occur."

Specific objectives include the following: "By the conclusion of the 1975-76 school year, teachers who participate in the ESEA Title II inservice program will demonstrate . . . a positive change in teaching behavior related to environmental education as measured by a staff developed questionnaire , . . . increased use of audiovisual material, environmental activities, and incorporation of environmental education in the classroom."

2.0 CONTENT — Scope and Sequencing of Topics:

Scope

Table of Contents

Introduction page 1-2
Objective of Minicourse page 3-6
Environmental Education page 7-16
Teacher Environmental Information Survey page 17-21
Teacher Environmental Attitude Survey
Teaching Behavior Analysis page 22-23
Course Description for Environmental Education page 24-26
Inservice Session No. I Introduction and Environmental Education page 27
Inservice Session No. II: Ecology page 28-29
Inservice Session No. III: Thermal Pollution page 30
Inservice Session No. IV: Population Education page 31-32
Inservice Session No. V: Water Pollution page 33-34
Inservice Session No. VI: Noise Pollution page 35
Inservice Session No. VII: Ecosystem Study page 36
Inservice Session No. VIII: Air Pollution page 37-38
Inservice Session No. IX: Poison by the Pound: Insecticides page 39-40
Inservice Session No. X: Music, Art, Language page 41
Inservice Session No. XI: Junk Ecology page 42
Inservice Session No. XII: Sensitivity page 43
Inservice Session No. XIII: On-Site Environmental Interpretation Center page 44
Inservice Session No. XIV: An Environmental Interpretation Center page 45
Inservice Session No. XV: Economics of Waste and Consumerism page 46
Inservice Session No. XVI: Curriculum Planning in Environmental Education page 47
Inservice Session No. XVII: Environmental Education Media page 48

Sequence

There are no prerequisites for use of the product,but surveys are required before taking the course. See 4.0. The describer infers that the material is to be used sequentially, but the product as presented does not clearly demonstrate entirely what that sequence is. There are two separate booklets and the describer infers that the contents of the Teacher Inservice Workshops booklet is to be used first.

3.0 ACTIVITIES AND RESOURCES INVOLVED IN USE OF PRODUCT

3.1 Description of main *in*service activities:

The user will attend a total of ten inservice workshops, interacting with an instructor and peers. The setting will be a classroom with seating space for 30 or fewer people and equipment for audiovisual presentations. The user will fill out questionnaires, view films, do other related activities and engage in discussion. The instructor's role is not delineated in the product, but the describer infers that the instructor presents materials, leads discussion, administers tests and supervises activities.

Each session is designed to last two hours; the entire inservice program is designed to last 16 hours or the equivalent of a one-hour semester class.

If the teacher participates in the student activities session, s/he will also interact with students.

3.2 Help given in use of product:

Much of this material resembles an outline more than it does a resource, especially where it pertains to the inservice sessions. Much of the supplementary material suggested is available through the ESEA Title III office in Orange County, Virginia. The booklet, "Environmental Education: Learning and Teaching Environmental Concepts and Attitudes" contains a Student Activities Program. The booklet, "Environmental Education: Teacher Inservice Workshop" contains outlines of the programs of each session and three teacher surveys. There are no guidelines for adaptation provided for the program instructor.

4.0 EVALUATION OF TEACHER INSERVICE LEARNING

Three pretests are administered in Inservice Session No. I: 1) a teacher environmental information survey; 2) a teacher environmental attitude survey; 3) a teaching behavior analysis. They are administered by the instructor. Posttests which rate program users' change in attitude and increased environmental awareness may be devised by the instructor.

5.0 ORDERING INFORMATION

5.1 Resources required/recommended for implementing product:

The entire program is designed to last 16 hours, or the equivalent of a one-hour/week semester course. Individual users may adapt this schedule to their own needs.

Classroom space for about 30 people or fewer is required. Also, seating, equipment for audiovisual presentations, paper, pencils and copies of the tests are needed.

Other teachers, students, and an instructor must be supplied by the participants, as must be all the reading and audiovisual material.

5.2 Distributor name/address:

Title III Environmental Education Program
Orange County High School
Orange, Virginia

Ms. Jan Wax
(703) 672-2838

5.3 Components/approximate costs:

Component	Purchase	Rental	No. Req.	Reusable
ENVIRONMENTAL EDUCATION:	total $3.00			
"Teacher Inservice Workshop"			one	yes
"Learning and Teaching Environmental Concepts and Attitudes"			one	yes
Filmstrip	$10.60		one	yes
Test Answers - free on request			one	yes

Note: The developer states that materials are available free of charge from the Title III Office in Orange, Virginia, except for the filmstrips, which will be made for 20¢ per frame. It is suggested that other areas might want to substitute some of the materials for others appropriate to their locations.

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6.0 HISTORY OF DEVELOPMENT

6.1 Identification of the developer:

The author is Mr. H. B. Lantz, currently head of curriculum and instruction at the High School, Orange, Virginia. Staff members include Joanne Grimm, Jennie Hill, Linda Sisk. All are environmental education instructors. The developer was responsible for broadening an existing program in order to create this one. Before becoming involved in the environmental education project, Mr. Lantz taught biology at Orange County High School.

6.2 How developed and when:

The time period for development of this product was four years; the program is currently undergoing revision as a result of feedback from Orange County schools. The product is currently being used in other counties in Virginia, and is also used in Cabarrus County, North Carolina.

6.3 Evidence of effectiveness with users:

The program is undergoing revision as a result of feedback from Orange County schools and the community. This is an ongoing process. The program has been well-received by the community and is being implemented in other areas. No specific information is available on how the revisions were made.

DESCRIBER CRITIQUE

Appropriateness / adaptability / technical quality:

As a cross between a resource and an outline, the program offers some useful guidelines and suggestions for carrying out a program of environmental education. However, as the product stands, the two booklets are related only in subject matter and do not present a comprehensive coverage of a complete program. The product is highly adaptable for inservice and preservice teachers of all grade levels and subject matter. Parents and local school officials could also find it of value. The technical quality is fair. Print in the "Teacher Inservice Workshops" booklet is often faint or blurred. Aesthetically, the product leaves something to be desired, and it is not of a highly professional quality.

Content accuracy/social fairness/community acceptance issues:

Factual information in the two softcover books appears to be accurate. There is no ethnic or sex bias. Content, as it concerns population control and the dissemination of birth control information, could prove to be controversial. Some may object to the whole concept of outdoor education and learning by doing, as taking away from time that could be spent on the basic skills and drill activities.

Overall summary/comment:

The product contains useful guidelines and information for an environmental education program but suffers from a lack of organization. The "Teacher Inservice Workshops" booklet alone is well-structured, although users would need to work at fleshing out the outlines. It is not made clear where the contents of the other booklet, "Environmental Education: Learning and Teaching Environmental Concepts and Attitudes" fit into the total program. It would be useful to know where the resource material is available from, other than Orange, Virginia, and who are the publishers or distributors. Many of the activities listed in the Student Activities Program are too elementary to be suitable for senior high school students.

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